

FIG. 1A (PRIOR ART)

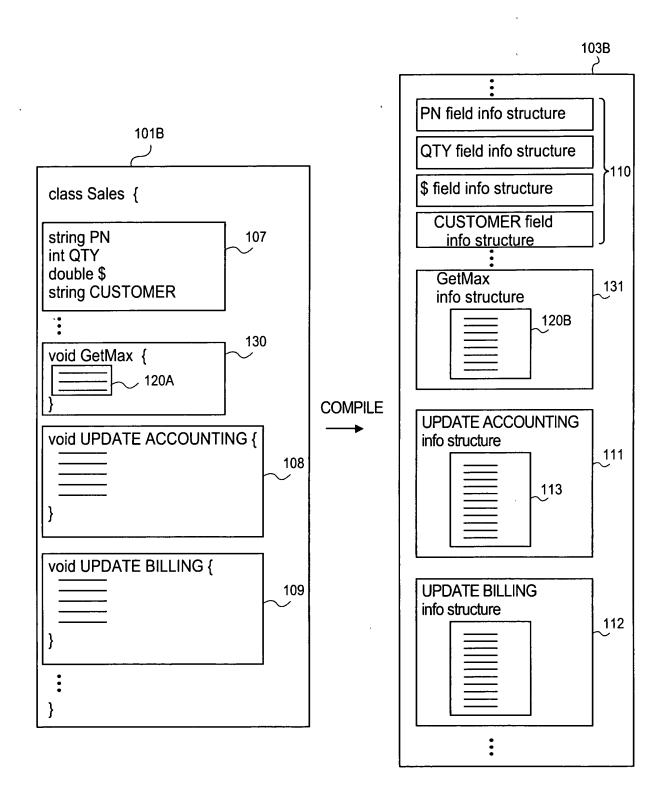
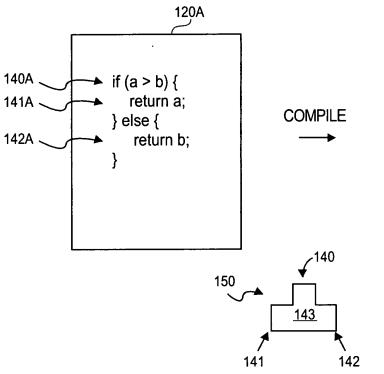


FIG. 1B (PRIOR ART)

"GetMax" source code text:

"GetMax" equivalent byte code:



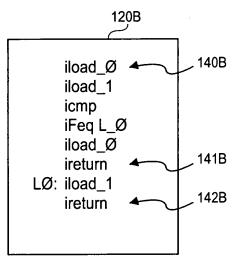


FIG. 1C (PRIOR ART)

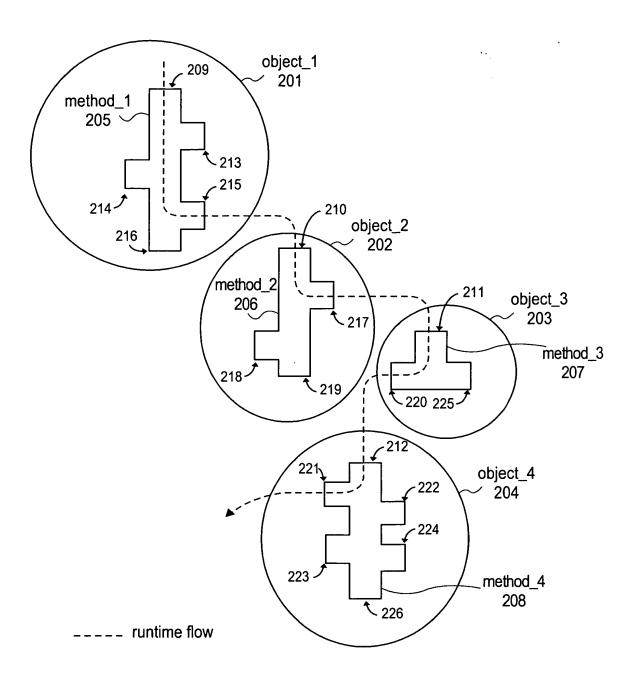
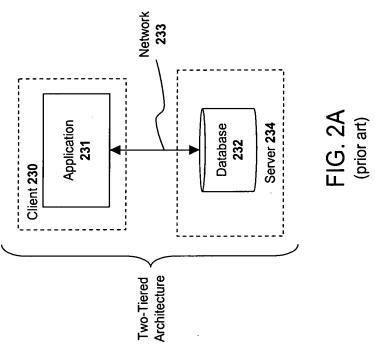


FIG. 1D (PRIOR ART)



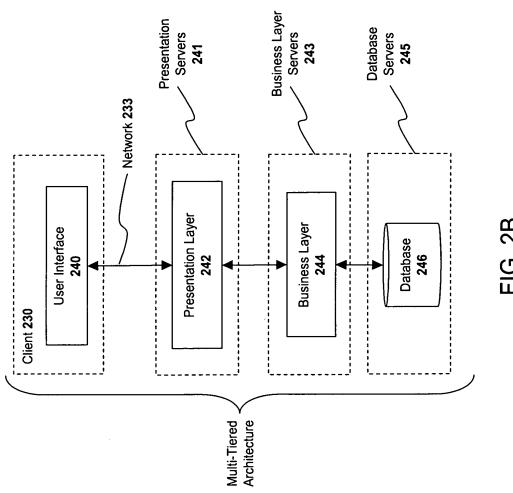
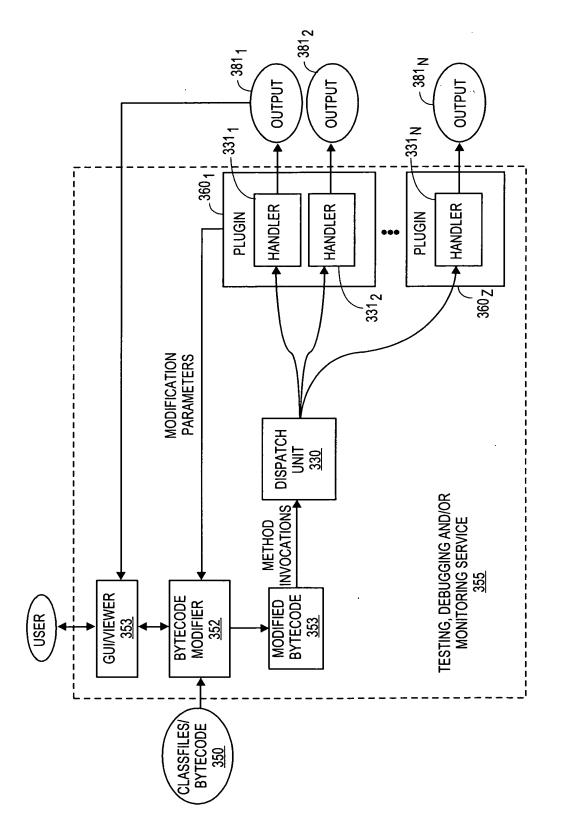


FIG. 2B (prior art)



<u>FIG.</u> 3

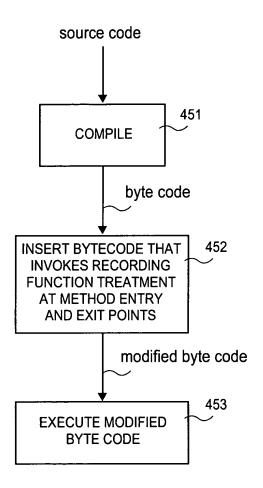
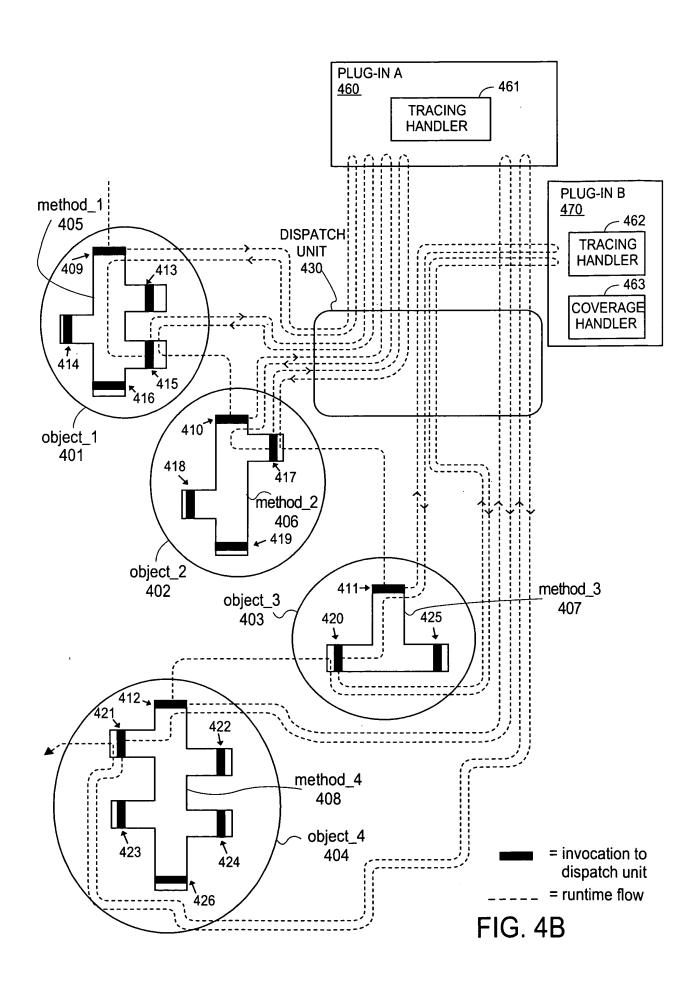
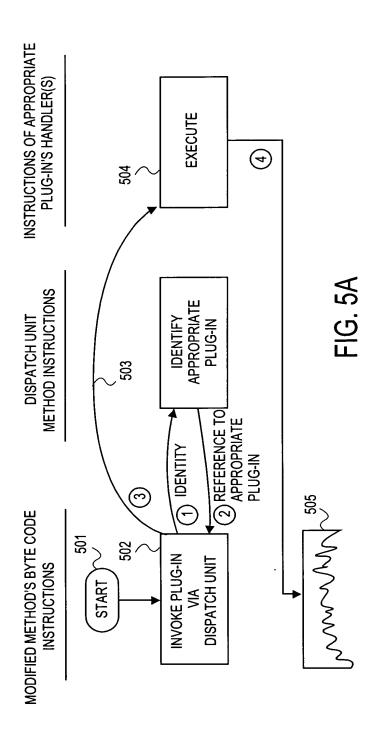
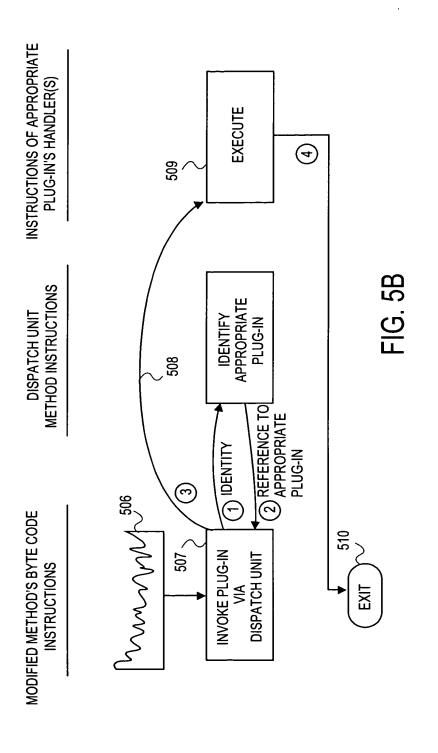
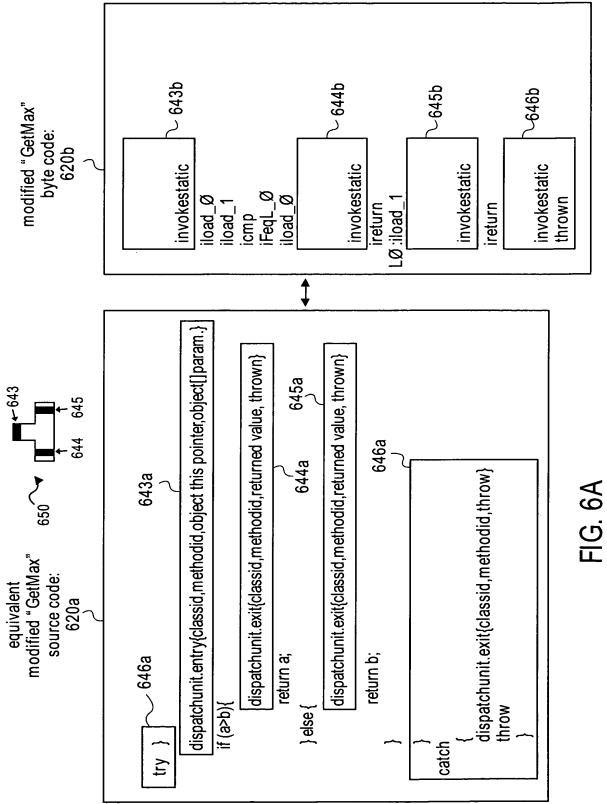


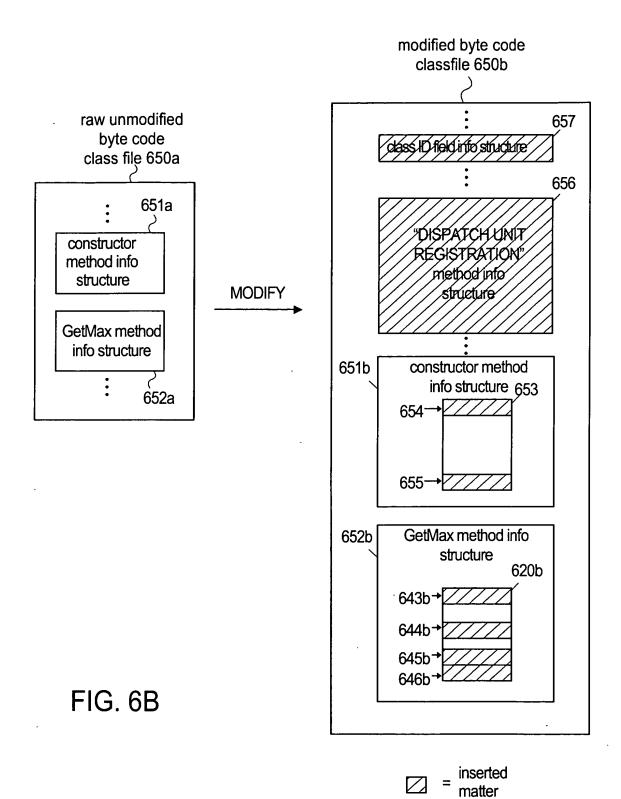
FIG. 4A











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	INVOKING METHOD	PLUG IN MODULE
(method_1)	C ₁ , M ₁ , args ₁₁	PIM_A
(method_2)	C ₁ , M ₂ , args ₁₂	PIM_A
(method_3)	C ₂ , M ₁ , args ₂₁	PIM_B
(method_4)	C ₃ , M ₁ , args ₃₁	PIM_A

FIG. 7

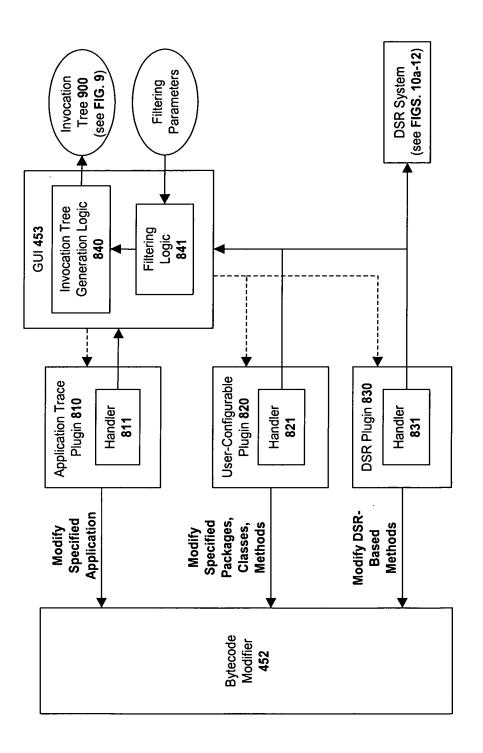
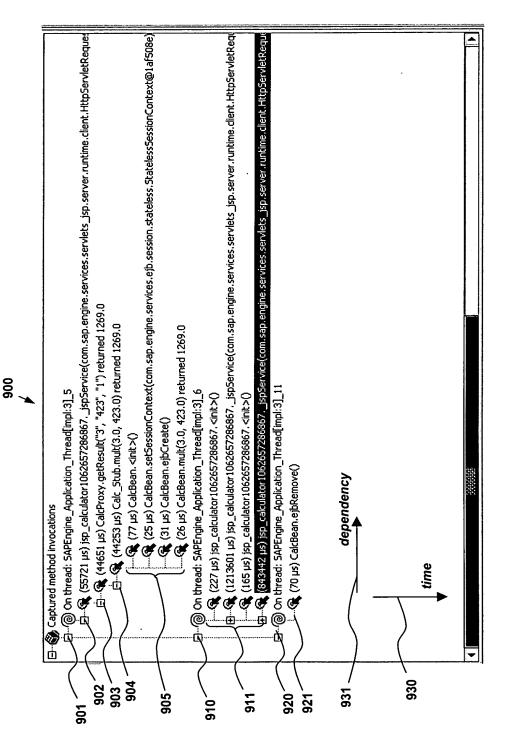


FIG. 8



Invocation Tree

FIG. 9A

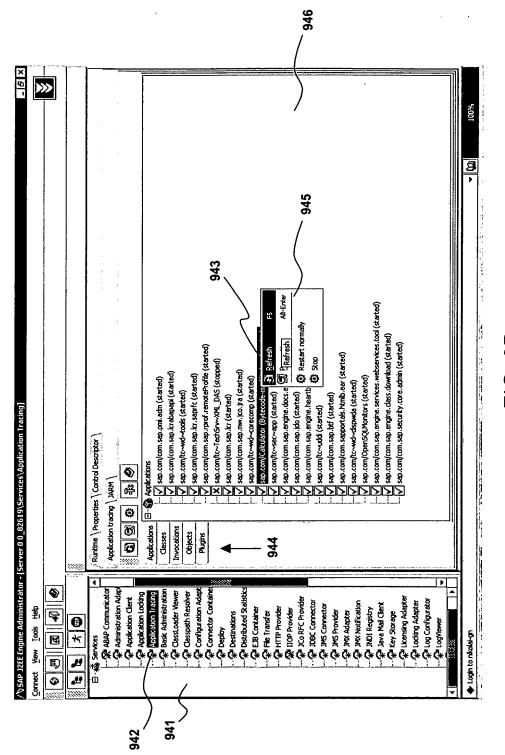


FIG. 9B

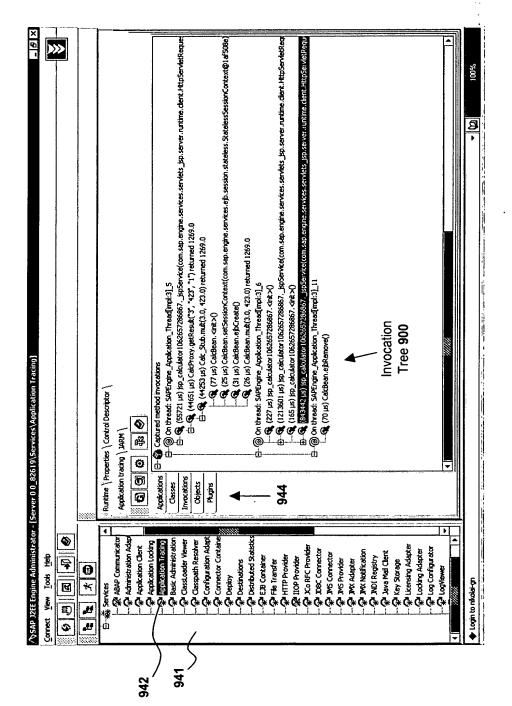


FIG. 9C

FIG. 9D

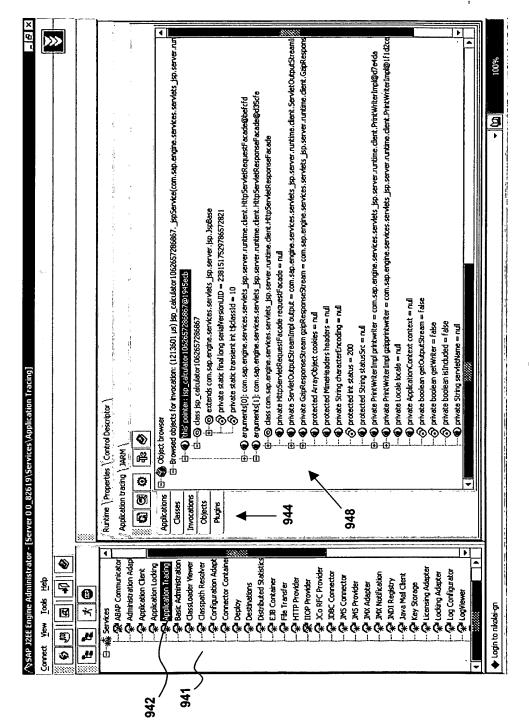
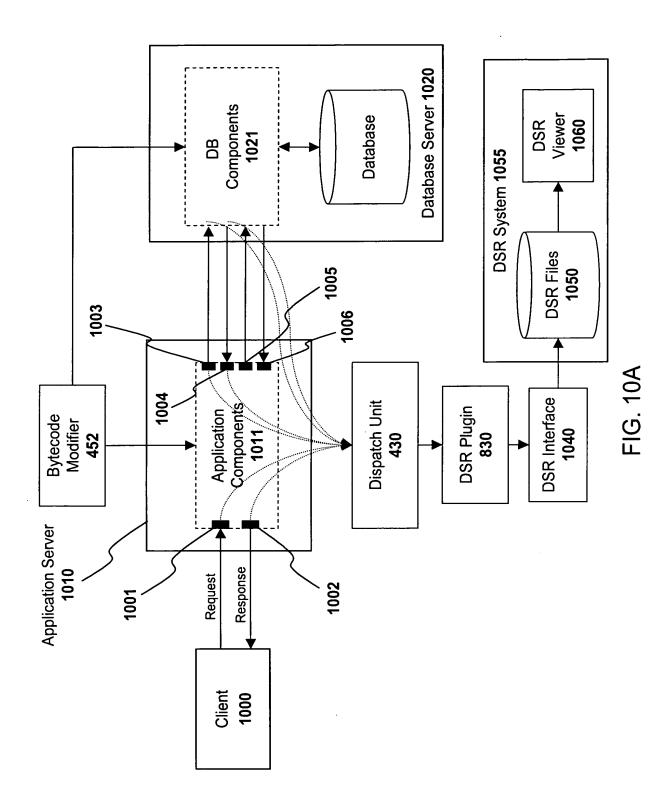


FIG. 9E



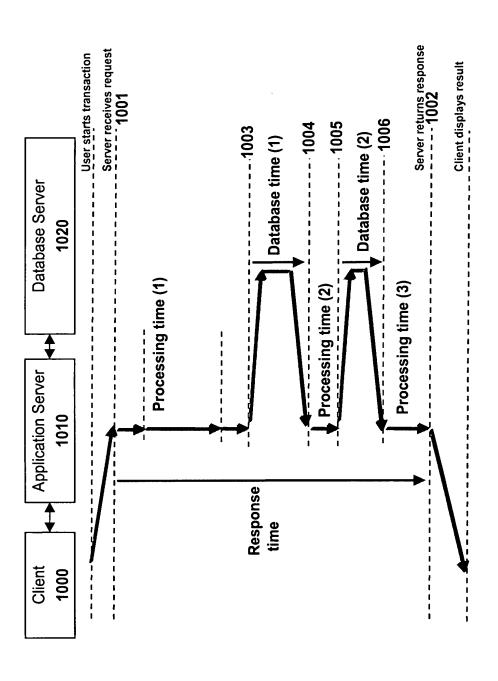
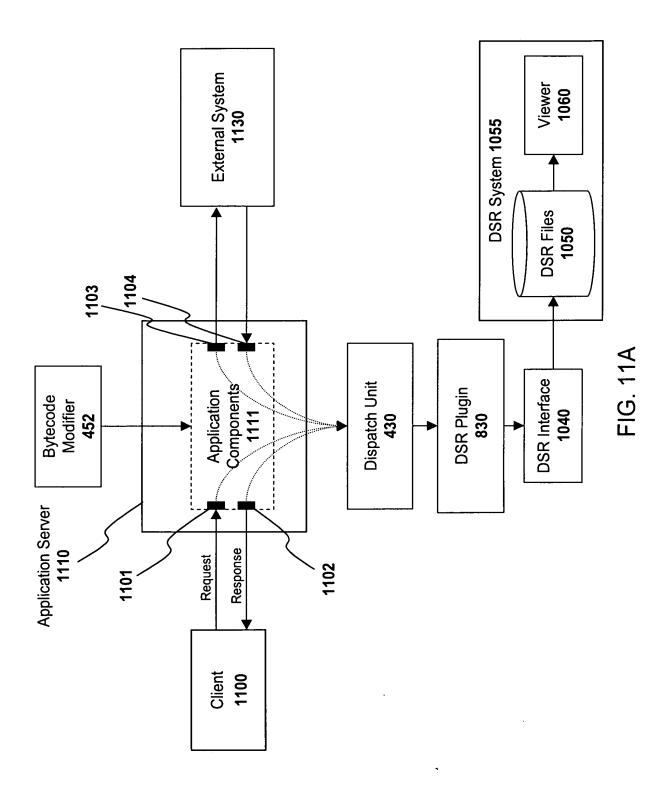


FIG. 10B



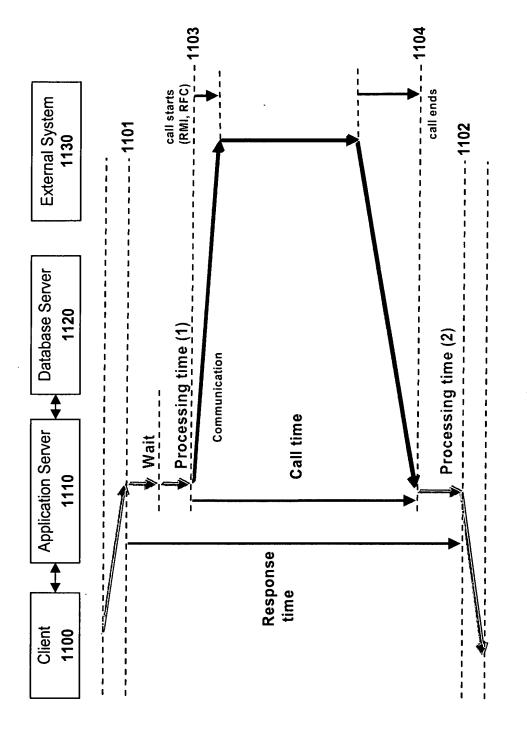


FIG. 11B

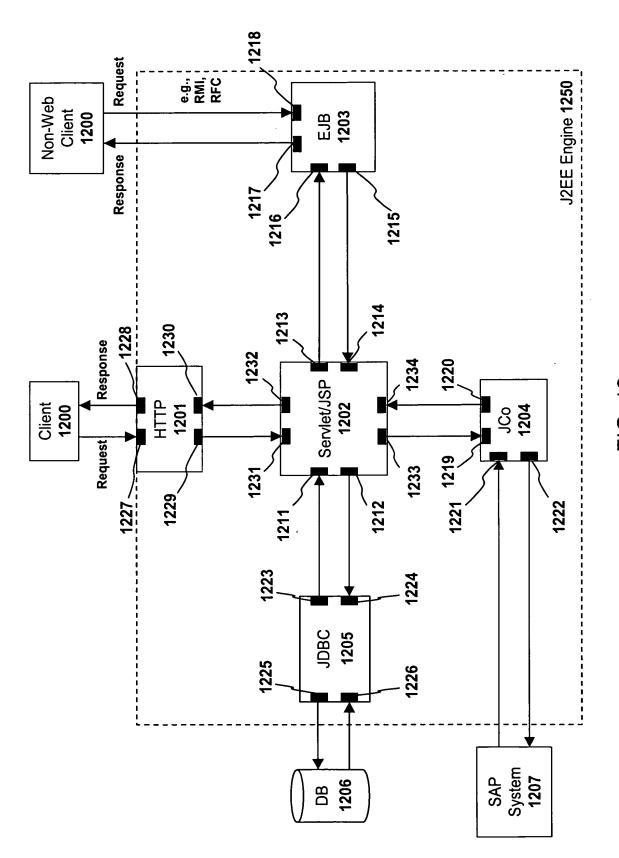


FIG. 12

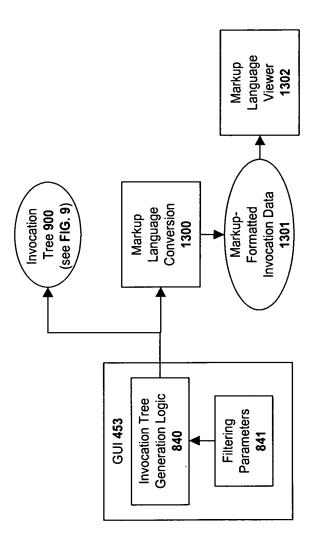


FIG. 13

FOR EACH CLASSFILE HAVING A METHOD TO BE MODIFIED:

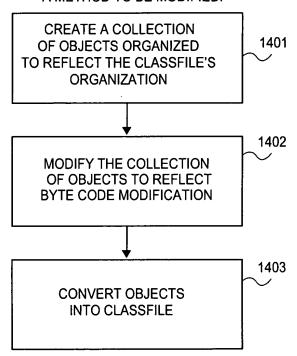
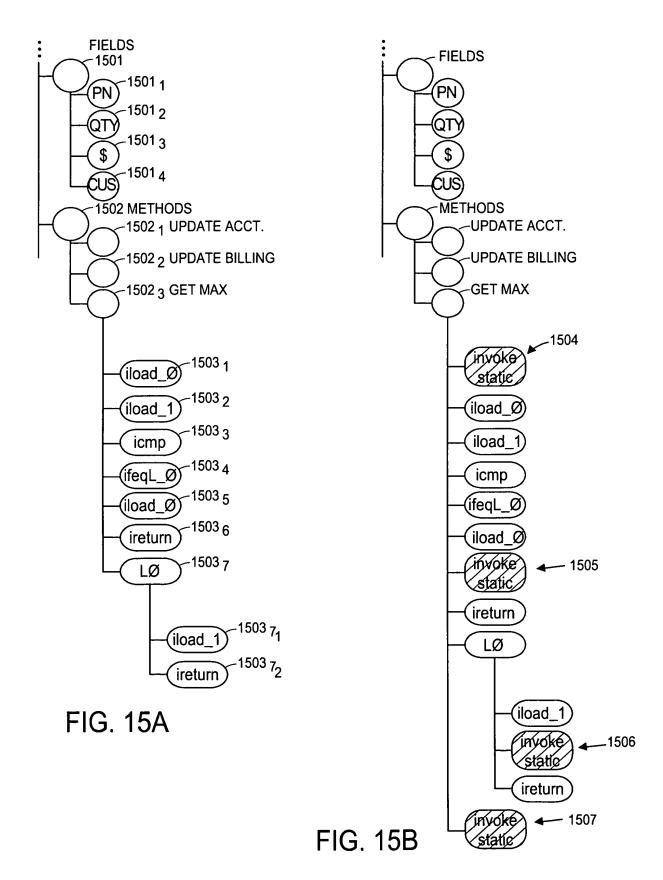


FIG. 14



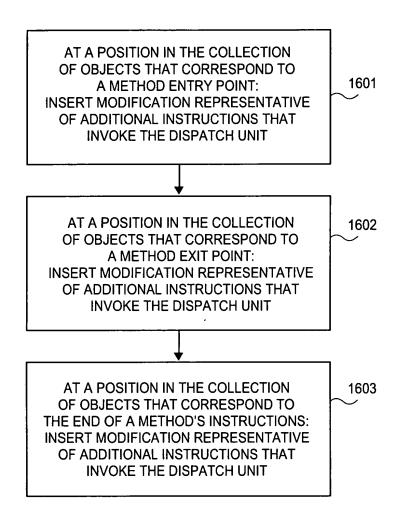
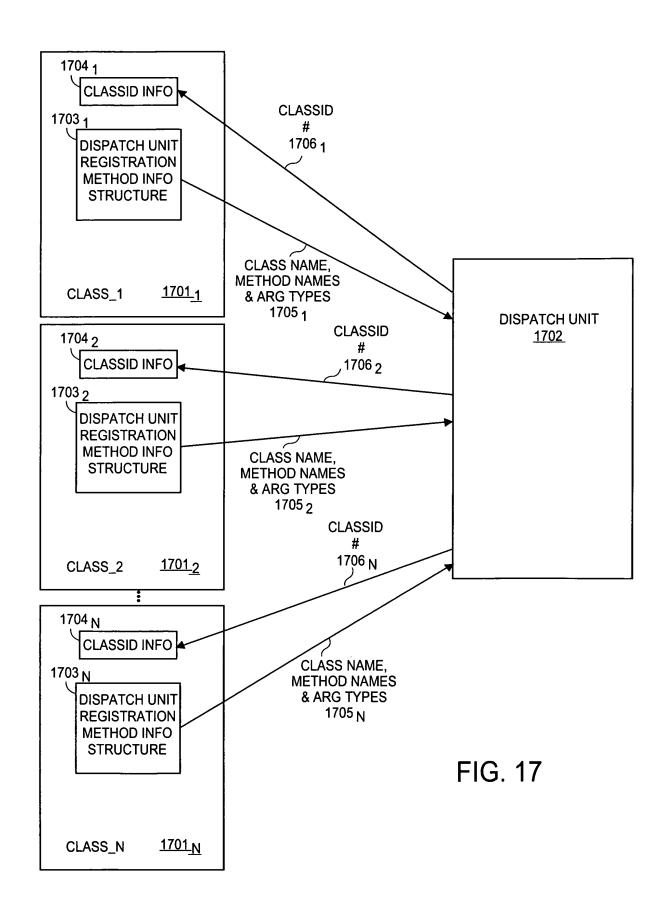


FIG. 16



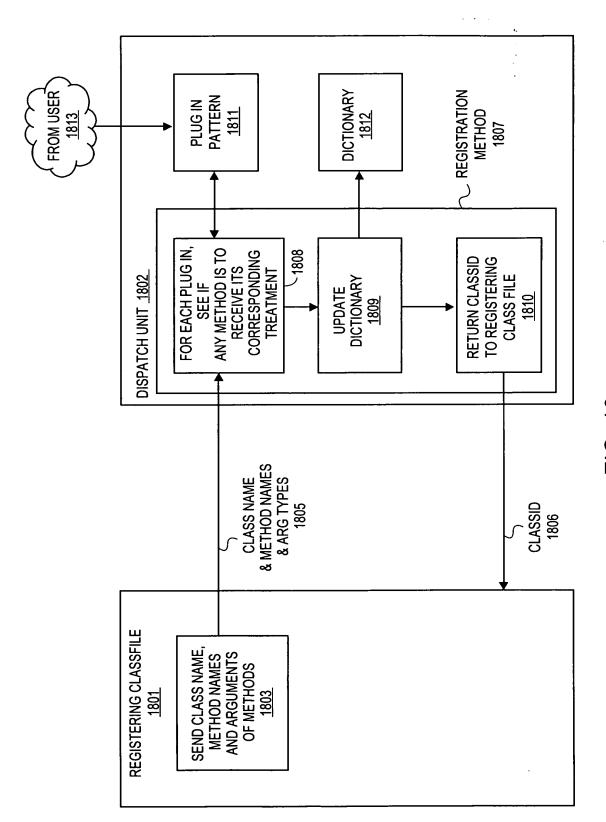
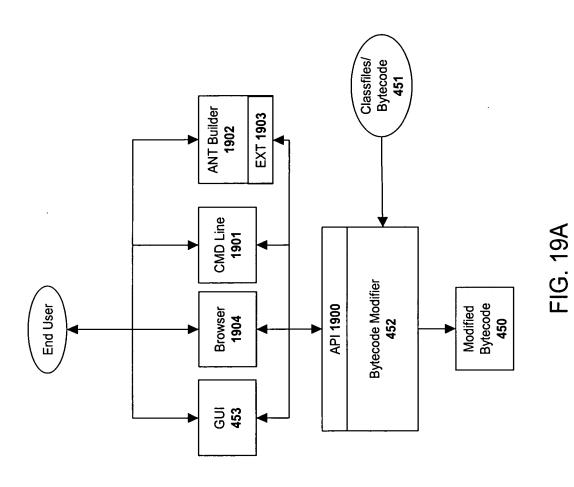


FIG. 18



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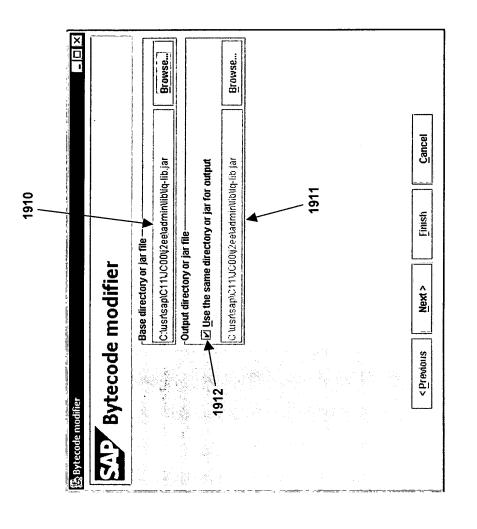


FIG. 19B

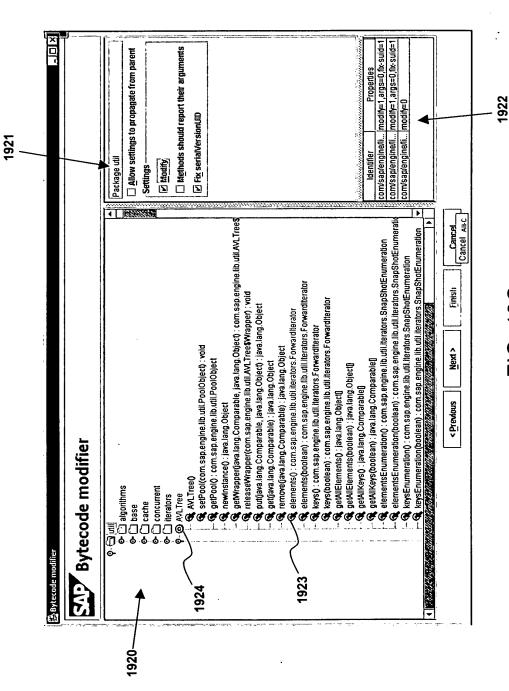


FIG. 19C

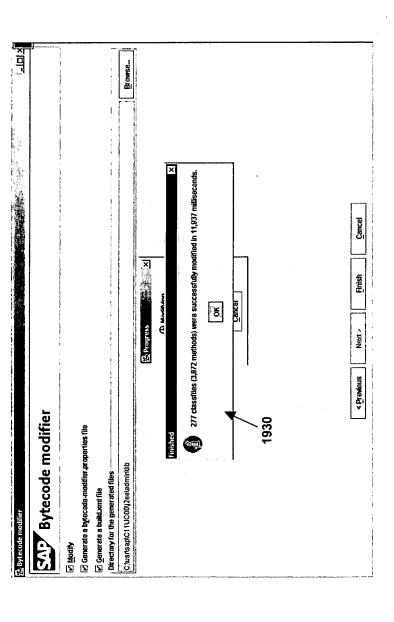


FIG. 19D

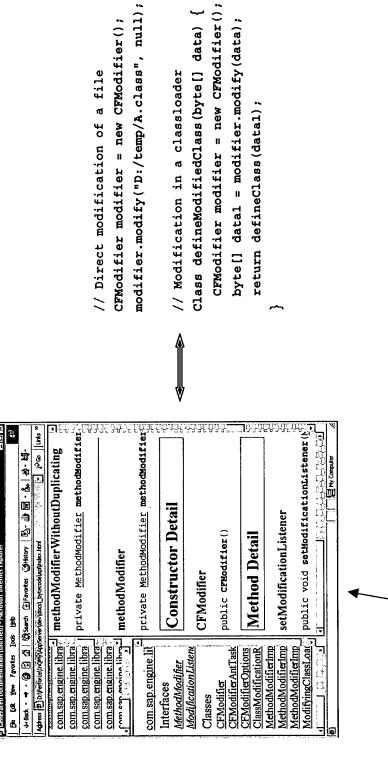


FIG. 19E

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FIG. 19F

<taskdef name="modify"</pre>

classname="com.sap.engine.library.bytecode.modifier.ModifierTask"

classpath="bytecode.jar"/>

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<modify conf="bytecode-modifier.properties"
inputFile="D:\temp\classes" outputFile="D:\temp\classes1"</pre>

check="true" verbosity="2" failonerror="true"/>

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FIG. 19G